

**Supplemental  
Notice of Allowability**

**Application No.**

10/583,358

**Examiner**

BRIAN CHEW

**Applicant(s)**

HASHIMOTO ET AL.

**Art Unit**

2195

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Allowability Notice mailed 16 March 2011 and interview on 4 May 2011.
2. ☒ The allowed claim(s) is/are 14, 15, 17, 18, 20, 21, 22 and 23, now renumbered 1-8.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\* c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. <input type="checkbox"/> Notice of References Cited (PTO-892)	5. <input type="checkbox"/> Notice of Informal Patent Application
2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	6. <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date <u>20110524</u> .
3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date ____	7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment
4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance
	9. <input type="checkbox"/> Other ____.
/B. C./ Examiner, Art Unit 2195	/Meng-Ai An/ Supervisory Patent Examiner, Art Unit 2195

### **SUPPLEMENTAL EXAMINER AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with W. Keith Robinson (Reg. No. 59,396) on 4 May 2011.

3. **This listing of claims will replace all prior versions and listings of claims in the application:**

1-13. (Canceled)

14. (Currently Amended) A server/client system in which a plurality of servers and a plurality of clients are connected through a network, and the servers execute a process based on a process request from the clients and transmit a process result to the clients, wherein

at least one of the servers includes

a process information receiving unit configured to receive information on the process from the clients through the network;

a determining unit configured to determine a server to execute the process from among the servers based on the information on the process; and

a server information transmitting unit configured to transmit information on the determined server to the clients, and

each of the clients includes

a server information receiving unit configured to receive the information on the determined server; and

a process request transmitting unit configured to transmit the process request to the determined server,

wherein the determining unit includes

a first calculating unit configured to calculate, for each of the servers, a first distance from an estimation point indicating an estimated consumption to an ideal consumption line, the first distance being a normal that connects the estimation point and the ideal consumption line, the estimated consumption obtained by adding an amount of resource to be consumed by execution of the process to a point indicating an amount of resource that has been consumed by a current resource consumption for each of the servers, the ideal consumption line being a straight line that connects an origin point and a point indicating a maximum resource capacity for each of the servers expressed in a space having parameters of resource as axes; and

a second distance calculating unit configured to calculate, for each of the servers, a second distance from the estimation point to the origin point in the space, and

the determining unit is configured to determine the server based on at least one of the first distance and the second distance.

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15. (Previously Presented) The server/client system according to claim 14, wherein the parameters include at least one of a load amount of a central processing unit, a load amount of a system memory, a load amount of a graphic processing unit, a load amount of a video memory, and a load amount of a network interface card.

16. (Canceled)

17. (Currently Amended) load distribution device used in a server/client system in which a plurality of servers and a plurality of clients are connected through a network, and the servers execute a process based on a process request from the clients and transmit a process result to the clients, comprising:

- a processor;

- a process information receiving unit configured to receive information on the process from the clients through the network;

- a determining unit configured to determine a server to execute the process from among the servers based on the information on the process; and

- a server information transmitting unit configured to transmit information on the determined server to the clients,

- wherein the determining unit includes

- a first calculating unit configured to calculate, for each of the servers, a first distance from an estimation point indicating an estimated consumption to an ideal consumption line, the first distance being a normal that connects the estimation point

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and the ideal consumption line, the estimated consumption obtained by adding an amount of resource to be consumed by execution of the process to a point indicating a current resource consumption for each of the servers, the ideal consumption line ~~the first distance being a normal that connects the estimation point and the ideal consumption line~~ being a straight line that connects an origin point and a point indicating a maximum resource capacity for each of the servers expressed in a space having parameters of resource as axes; and

a second distance calculating unit configured to calculate, for each of the servers, a second distance from the estimation point to the origin point in the space, and the determining unit is configured to determine the server based on at least one of the first distance and the second distance.

18. (Previously Presented) The load distribution device according to claim 17, the parameters include at least one of a load amount of a central processing unit, a load amount of a system memory, a load amount of a graphic processing unit, a load amount of a video memory, and a load amount of a network interface card.

19. (Canceled)

20. (Currently Amended) A load distribution method used in a server/client system in which a plurality of servers and a plurality of clients are connected through a network,

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and the servers execute a process based on a process request from the clients and transmit a process result to the clients, comprising:

- receiving information on the process from the clients through the network;

- determining a server to execute the process from among the servers based on the information on the process; and

- transmitting the process request to the determined server,

- wherein the determining includes

- calculating, for each of the servers, a first distance from an estimation point indicating an estimated consumption to an ideal consumption line, the first distance being a normal that connects the estimation point and the ideal consumption line, the estimated consumption obtained by adding an amount of resource that has been consumed by execution of the process to a point indicating a current resource consumption for each of the servers, the ideal consumption line being a straight line that connects an origin point and a point indicating a maximum resource capacity for each of the servers expressed in a space having parameters of resource as axes; and

- calculating, for each of the servers, a second distance from the estimation point to the origin point, in the space, and

- the determining includes determining the server based on at least one of the first distance and the second distance.

21. (Previously Presented) The load distribution method according to claim 20, wherein the parameters include at least one of a load amount of a central processing

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unit, a load amount of a system memory, a load amount of a graphic processing unit, a load amount of a video memory, and a load amount of a network interface card.

22. (Canceled)

23. (Currently Amended) A computer-readable recording medium that stores therein a load distribution program for distributing loads of servers in a server/client system in which a plurality of servers and a plurality of clients are connected through a network, and the servers execute a process based on a process request from the clients and transmit a process result to the clients, the load distribution program making the servers execute:

receiving information on the process from the clients through the network;

determining a server to execute the process from among the servers based on the information on the process; and

transmitting the process request from the clients to the determined server,

wherein the determining includes

calculating, for each of the servers, a first distance from an estimation point indicating an estimated consumption to an ideal consumption line, the first distance being a normal that connects the estimation point and the ideal consumption line, the estimated consumption obtained by adding an amount of resource to be consumed by execution of the process to a point indicating a current resource consumption for each of the servers, the ideal consumption line being a straight line that connects an origin

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point and a point indicating a maximum resource capacity for each of the servers expressed in a space having parameters of resource as axes; and

calculating, for each of the servers, a second distance from the estimation point to the origin point, in the space, and

the determining includes determining the server based on at least one of the first distance and the second distance.

24. (Previously Presented) The computer-readable recording medium according to claim 23, wherein the parameters include at least one of a load amount of a central processing unit, a load amount of a system memory, a load amount of a graphic processing unit, a load amount of a video memory, and a load amount of a network interface card.

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN CHEW whose telephone number is (571)270-5571. The examiner can normally be reached on Monday-Thursday, 8:00AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. C./

Examiner, Art Unit 2195

/Meng-Ai An/

Supervisory Patent Examiner, Art Unit 2195